DOCUMENT RESUME

ED 419 611 PS 026 524

AUTHOR	Wang, Margaret C.; Haertel, Geneva D.; Walberg, Herbert J.
TITLE	Building Educational Resilience. Fastback 430.
INSTITUTION	Phi Delta Kappa Educational Foundation, Bloomington, IN.
ISBN	ISBN-0-87367-630-0
PUB DATE	1998-00-00
NOTE	64p.
AVAILABLE FROM	Phi Delta Kappa International, 408 North Union, P.O. Box 789, Bloomington, IN 47402-0789; phone: 812-339-1156 ($3 non-members; $2.25 members).
PUB TYPE	Collected Works - Serials (022) -- Guides - Non-Classroom (055)
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Academic Achievement; Classroom Techniques; Elementary Secondary Education; *High Risk Students; *Intervention; Program Descriptions; *Resilience (Personality); *Teacher Role

ABSTRACT

The number of children at risk of school failure because of poverty, illness, divorce, drug and alcohol abuse, frequent relocation, and other adverse circumstances is increasing. Although some teachers may feel as though these problems are beyond them, research points to educators' actions that can alleviate such problems by fostering educational resilience--the capacity of students to attain academic and social success in school despite exposure to personal and environmental adversities. To assist educators in fostering resilience, this "Fastback," produced by the Phi Delta Kappa Educational Foundation, describes the roles of teachers and other educators in promoting educational resilience and shares findings that many children demonstrate remarkable achievement despite conditions that put them at risk of failure. The fastback's contents are: (1) "Introduction"; (2) "When Schools Shortchange Children" (what we know about resilience, student diversity and poverty); (3) "Protective Factors that Promote Resilience" (family, peer group, community, school); (4) "Creating Classrooms that Foster Resilience" (teacher attitudes and expectations, instructional practices, classroom climate and organization, curriculum); (5) "Programs and Reforms that Build Resilience" (programs targeted to children at risk of school failure, comprehensive school reform versus narrower interventions, direct influences on student learning, meeting children's basic needs, students' sense of belonging, adapting curriculum and instruction); and (6) "Conclusion." An appendix lists educational programs with resilience-promoting features. (Contains 18 references.) (EV)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

PS

430

FASTBACK

ED 419 611

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Building Educational Resilience

Margaret C. Wang
Geneva D. Haertel
Herbert J. Walberg

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

D. R. Walling

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

PHI DELTA KAPPA EDUCATIONAL FOUNDATION

Margaret C. Wang

Geneva D. Haertel

Herbert J. Walberg

Margaret C. Wang is a professor of educational psychology and the founder and current director of the Temple University Center for Research in Human Development and Education (CRHDE). Wang also serves as director of both the Mid-Atlantic Laboratory for Student Success and the National Center on Education in the Inner Cities.

Geneva D. Haertel is a senior research associate at CRHDE, where she conducts research syntheses on the achievement of children at risk of school failure. In 1990 she co-edited, with Herbert Walberg, *The International Encyclopedia of Educational Evaluation*. She also is the co-author, with Herbert Walberg and Suzanne Gerlach-Downie, of fastback 377 *Assessment Reform: Challenges and Opportunities*.

Herbert J. Walberg is research professor of education and psychology at the University of Illinois at Chicago. He served on the National Assessment Governing Board and currently chairs the Heartland Institute, a think-tank that provides policy analyses to Congress, state legislators, and others.

The research reported in this fastback was supported in part by the Office of Educational Research and Improvement of the U.S. Department of Education. The opinions expressed do not necessarily reflect the position of the supporting agencies, and no official endorsement should be inferred.

Series Editor, Donovan R. Walling

Building Educational Resilience

by
Margaret C. Wang,
Geneva D. Haertel,
and
Herbert J. Walberg

Library of Congress Catalog Card Number 98-65078
ISBN 0-87367-630-0
Copyright © 1998 by the Phi Delta Kappa Educational Foundation
Bloomington, Indiana

This fastback is sponsored by
Area Coordinator Sonja-Lou Clary
and the eight chapters in Area 5J of
Phi Delta Kappa International,
which made a generous contribution
toward publication costs.
They sponsor this fastback in memory of
Leodies U. "Burt" Arburtha,
former Area 5J Coordinator, District V
Representative, and member of the
PDK International Board of Directors.
Burt's love for people, education, and
Phi Delta Kappa was exemplified by his
enthusiastic encouragement of others
to do their best and to be resilient.
He made a positive difference in the
lives of many, including the students
at Chicago Vocational High School
and his fellow Kappans.

Table of Contents

Introduction 7

When Schools Shortchange Children 9
- What We Know About Resilience 10
- Student Diversity and Poverty 12

Protective Factors that Promote Resilience 17
- Family 18
- Peer Group 23
- Community 25
- School 29

Creating Classrooms that Foster Resilience 32
- Teacher Attitudes and Expectations 32
- Instructional Practices 34
- Classroom Climate and Organization 38
- Curriculum 39

Programs and Reforms that Build Resilience 42
- Programs Targeted at Children at Risk of School Failure 43
- Comprehensive School Reform vs. Narrower Interventions 46
- Direct Influences on Student Learning 47

Meeting Children's Basic Needs 49
Students' Sense of Belonging 50
Adapting Curriculum and Instruction 52

Conclusion 55

References 58

Appendix 60

Introduction

The media paint a bleak picture of the prospects for children and youth in many U.S. schools and communities. The number of children at risk of school failure because of poverty, illness, divorce, drug and alcohol abuse, frequent relocation, and other adverse circumstances is increasing. Teachers and others who work with young people face new challenges as they try to meet the needs of students whose lifestyles and linguistic, cultural, and economic backgrounds are marginalized by mainstream society.

Although some teachers may feel as though these problems are beyond them, research points to educators' actions that can alleviate such problems by fostering educational resilience — that is, the capacity of students to attain academic and social success in school despite exposure to personal and environmental adversities.

To assist educators in fostering resilience, this fastback provides information that will help transform a hopeless picture of students at risk into a vision of educationally resilient students who are capable of overcoming adversities. It describes the roles of teachers and other ed-

ucators in promoting educational resilience and shares heartening findings that many children demonstrate remarkable achievement despite conditions that put them at risk of failure.

When Schools Shortchange Children

Children at risk of school failure can be found in every classroom. They include students who can not understand the language of instruction, who are hungry, who live in shelters, who are alienated by the cultural norms of schools, and who have greater-than-usual instructional needs because of physical and psychological disabilities. Many of these children and youth at risk of school failure are ignored, while others suffer the humiliation of such labels as "retarded," "learning disabled," "emotionally disturbed," "educationally deficient," or "culturally disadvantaged" (Wang and Reynolds 1995).

Many schools have segregated these students using tracking and ability grouping, opting for a separate system of special classes, resource rooms, and transition classes. Too often instruction in these classes focuses on basic skills and remedial content, rather than on comprehension, problem solving, and critical thinking. Consequently, students inadvertently are denied access to the high expectations, rich content, and instructional

strategies known to promote achievement. Research on at-risk children and youth reveals that those enrolled in educationally segregated programs are unlikely to attain educational success (Baker, Wang, and Walberg 1994).

Schools and school personnel often are blamed for the low achievement of children in adverse circumstances. Understandably, teachers feel overwhelmed by the complex web of problems facing students in many U.S. schools. In an effort to help teachers face these challenges, education researchers are identifying protective factors that promote healthy development and learning among children and youth in adverse circumstances. They are learning how families, teachers, schools, and communities can foster resilience so that youngsters facing adversity can fulfill their hopes and dreams and benefit all of society in the process (Wang and Gordon 1994).

What We Know About Resilience

Resilience is not a new phenomenon. Most of us know someone who overcame difficult or traumatic circumstances as a young person and grew up to become a healthy, educated, successful adult. Film and literature are full of stories that celebrate the survival of individuals who overcome adversity and succeed against all odds. Filmgoers recognize the educational resilience demonstrated by the Latino students portrayed in the film, *Stand and Deliver*, while many readers are familiar with the invincibility displayed by Maya Angelou in her autobiography, *I Know Why the Caged Bird Sings*.

Although researchers have offered numerous definitions of resilience in the past 20 years, they all have stressed the capacity of individuals to overcome personal vulnerabilities and environmental adversities or the ability to thrive physically and psychologically despite adverse circumstances during childhood and in later years. Researchers have studied resilience in children contending with a variety of personal and family problems, such as divorce, highly stressed fathers and mothers, drug addiction, violence, early parent death, poverty, and histories of physical and mental illnesses. These researchers identified risks, personal vulnerabilities, competencies, and protective factors; they investigated the origins of resilience and found intellectual, emotional, physical, and environmental influences important for healthy development.

Resilient children have abilities and adaptive characteristics that enable them to develop into healthy adults (Wang, Haertel, and Walberg 1994). Verbal fluency, a sense of competence, and good problem-solving skills characterize resilient children. Resilient children also exhibit high self-esteem, self-control, malleability, even temper, and openness to new experiences. Caregivers find these characteristics attractive, which prompts them to provide positive comments to the children, thereby further promoting their resilience. Resilient children also benefit from a well-defined autonomy, interpersonal skills, and "adaptive distancing," the ability to screen out or remove themselves from conditions that are potentially negative. Resilient children are resourceful and flexible; they can plan, change their environment, and

alter their lives in successful ways. They set goals, maintain healthy expectations, and have a clear sense of purpose. An engaging sense of humor deflects some of their potential confrontations and other difficulties.

Two of the most salient characteristics of resilient children are their high level of engagement and sense of "personal agency." Resilient children engage in many activities and believe that they themselves determine their lives. They vigorously further their own development and learning by selecting relationships and environments that support their growth. In school, for example, resilient children choose academic programs, activities, and assignments that enhance their skills, extend their experiences, and increase their opportunities for learning. They elicit their teachers' and peers' support and protection and receive attention even under adverse circumstances.

Student Diversity and Poverty

Resilient students come from a broad sweep of conditions that include far larger numbers of non-resilient students. These conditions include categories of race, ethnicity, socioeconomic status, English proficiency, handicapping conditions, lifestyles, and family configurations. However, poverty is the most pervasive condition — partly because it is a cause of poor school achievement in itself and partly because it overlaps with the other categories.

Census data from the 1980s show the plight of children and families in poverty. Impoverished neighbor-

hoods, particularly those in the nation's inner-cities and rural communities, are threatened by a set of modern morbidities that includes limited resources, lack of employment opportunities, disorderly and stressful environments, poor health care, children born of children, highly fragmented patterns of human services, and widespread academic failure (Wang and Gordon 1994). Inequality in the life chances of children growing up in these socioeconomic environments is clearly evident.

Beginning in the 1960s, social theorists stirred the nation's conscience concerning the dire circumstances surrounding the poor. Education theorists and researchers offered ideas to guide teachers in developing instructional strategies to lift the academic achievement of students from low-income families. In the 1960s, cultural deprivation was the dominant view. In examining the relationship between social classes, social scientists labeled poor children and their families as "disadvantaged," "deprived," and "underprivileged." Children from families of low socioeconomic status were provided with increased opportunities for achieving, but the gap between the socialization experiences in homes and communities and those in school continued to be a barrier to academic success — an added risk to the multiple co-occurring risks facing many of the children from economically disadvantaged homes.

By the 1970s, the cultural deprivation explanation was eclipsed by the "cultural difference" viewpoint. This perspective explained the poor academic performance of students from low-income homes as a result of a conflict between the cultures of low-income, ethnic

minority groups and the school culture. The cultural difference view focused on learning and teaching styles and the role of language.

Since the late 1980s, the "at risk" view has emerged. It refers to children who differ in many ways and can be applied to any group that is experiencing adversities that impede academic and later-life success. These three views — cultural deprivation, cultural difference, and at risk — have generated many studies focused on improving the school performance of low-income, minority children and youth.

Studies have been conducted that examine the influence of poverty, educational disadvantage, and family environment on cognitive ability, language development, school achievement, drug use, criminal activity, and employment. Programs such as Head Start, Title I, and bilingual education were designed to supplement the education of poor and low-achieving students. Ideally, these programs are intended to provide experiences and skills for children in poverty to move into the "school success flow," and subsequently become economically secure members of mainstream society.

Children in these programs, though largely white and poor, include many minority children, because minority children are disproportionately poor. While these programs sometimes further the academic achievement of children in poverty and children of color in the early grades, the results often fade over time. In addition, the pullout and separate instructional settings that frequently are employed in categorical programs segregate children with special needs from the more enriched

school setting available to children not placed in categorical programs. Categorical programs also segregate minority children, who often are linguistically diverse and economically disadvantaged. Thus Title I, which provides reading and mathematics supplementary instruction to children from economically disadvantaged circumstances, and other categorical programs have done little to increase social and academic integration. This exemplifies educational segregation by the "second systems" programs (Wang and Reynolds 1995).

The socioeconomic contexts of schooling play an important role in differences in education attainment and the type of resources that are available in creating learning situations that promote school success. At the National Center on Education in the Inner Cities (CEIC), Yancey and Saporito (1997) found that economic segregation tends to have a greater effect on student learning than does racial segregation in schools. This finding has major implications for policy development and improvement of practice. In fact, it has served as a basis for systemic reform planning by the school district of Philadelphia.

Yancey and Saporito's study on racial and economic segregation and education outcomes points to a need for attention to the interactive and interdependent nature of policy implementation. School systems are systemic; change in one element likely will reverberate throughout the system. Furthermore, policy interventions that focus on relatively narrow outcomes may have unanticipated consequences. Efforts toward racial integration in schools are a case in point. Although well-

intentioned, such efforts apparently have resulted in greater racial and socioeconomic isolation in the make-up of urban schools (Yancey and Saporito 1997).

Protective Factors that Promote Resilience

Studies of resilience demonstrate that children differ in their capacity to exploit the positive features of their environment and to not succumb to the threats and challenges of their lives. Some are much more successful than others. Attributes of children's personalities, temperaments, and abilities contribute to their capacity to exploit their environment. These attributes act as protective factors, which buffer adversities and reduce negative consequences of stressful life events, thereby fostering resilience (Masten, Best, and Garmezy 1990).

Just as some personality traits act as protective factors, so do some features of families, communities, and schools. Families holding high educational aspirations for their children, communities providing low-cost transportation, and schools offering advanced courses in several subjects are examples of features that reduce the effects of adversities. The remainder of this fastback examines features of the family, peer group, community, and school that promote educational resilience.

In an earlier publication we defined educational resilience as "success in school despite personal vul-

nerabilities and adversities brought about by early and ongoing environmental conditions and experiences" (Wang, Haertel, and Walberg 1994, p. 6). Education research has demonstrated that features of homes, schools, peer groups, and communities promote the development of beliefs and behaviors in children and youth resulting in positive educational outcomes and educational resilience. By identifying and implementing those features that act as protective factors, educational environments can be designed to promote resilience.

Adversities can be categorized by four contexts: family, peer group, school, and community. Countering these adversities are protective factors in each of the contexts. A one-to-one correspondence between a particular adversity and a protective factor that mitigates its effect is neither possible nor necessarily desirable. Although an adversity such as malnutrition can be eliminated by a single protective factor — proper nutrition — such simplicity is generally not the case. For example, it may not be possible to determine which of several protective factors, such as a caring teacher, a close-knit peer group, or participation in a cooperative learning experience, ameliorates a teenager's sense of estrangement from school. Moreover, several protective factors may work together to mitigate a particular adversity, and a single protective factor can mitigate against several adversities.

Family

Among the adversities that can occur in the family context are:

Poverty	Chronic illness
Toxic environment	Divorce
Malnutrition	Substance abuse
Unemployment	Maltreatment
Frequent relocation	Poor parenting skills
Limited transportation	Poor communication
Inadequate health care	Limited education

Families can actively foster educational resilience within and outside the home. Children who experience positive child-parent relationships, family warmth and cohesion, and an absence of discord in their homes are more resilient and protected against adversity in childhood and later life. They also benefit from consistent discipline and rules in the home and from fully participating in family life through parental encouragement and expectations.

Because families are a child's first protective agents, they are logical starting points for analyzing resilience development. Masten and colleagues (1990) note that parents nurture mastery motivation and self-esteem as well as physical growth. Parents provide information, learning opportunities, behavioral models, and connections to other resources. When these transactional protective processes are absent or severely limited for prolonged periods, a child may be significantly handicapped in subsequent adaptation by low self-esteem, inadequate information or social know-how, a disinclination to learn or interact with the world, and a distrust of people.

Among parent characteristics that promote resilience development are:

- Being caring and creating a structured and supportive family life;
- Holding high academic, moral, and social expectations for children's behavior; and
- Encouraging participation in the life of the family.

Most resilient children appear to have at least one strong, enduring relationship with an adult (not always a parent). Receiving care and affection from adults appears to be critical throughout childhood and adolescence but particularly during the first year of life. Research suggests that secure childhood attachments to parents or other adults protect against adversity later in life. Masten and colleagues showed that children whose families had a history of marital instability were more often rated as disruptive by peers and teachers. Positive, intimate relationships enhance the child's self-concept and sense of social worth. Many children, however, are deprived of such relationships and are undoubtedly harmed.

Family mobility also can harm children, especially those considered to be at risk. Frequent relocation by a child's family is a serious and pervasive risk factor for student learning among poor and minority children. Even when children move from a community of lower socioeconomic status to one of higher socioeconomic status, they often suffer grade retardation, which forecasts further retardation, poor achievement, and dropping out.

Family characteristics are an important differentiating factor between low- and high-achieving African-Amer-

ican students. National Assessment of Educational Progress (NAEP) data suggest that higher-achieving African-American students tend to come from higher social classes and have working mothers. In addition, these students are twice as likely as their low-achieving counterparts to attend Catholic schools and to reside in urban areas (Lee, Winfield, and Wilson 1991).

Many of the problems students experience cannot be addressed without the direct involvement of the family. Such activities as assigned chores, caring for brothers and sisters, and contributing part-time work to support the family show children that they can work with their families to improve their life circumstances, which leads to enhanced self-esteem and fosters resilience.

Family involvement in children's education also enhances children's school performance. The active participation of family members in children's educational experiences improves their achievement, increases school attendance, and decreases dropout rates, delinquency, and teenage pregnancy rates. Intervention programs designed to involve family members are significantly more effective than programs aimed exclusively at students. Parents who participate in family involvement programs also generally feel better about themselves and are more likely to enroll in courses that advance their own education (Flaxman and Inger 1991). By introducing parent involvement programs in low-performing schools in poor neighborhoods, Comer and his associates observed substantial achievement gains over several years. These results were attributed to management teams involving parents, parent-developed

workshops, parent involvement in tutoring programs for children, and parents assisting teachers in classroom activities (Comer 1986).

A recent theory of family-school connections identifies four important "microsystems" that influence children: families, peer groups, schools, and neighborhoods. The degree of psychological overlap among these microsystems represents the extent to which they share constructive values, goals, and understandings of the social and cultural processes governing everyday life. The greater the overlap among these systems, the more common their cultures. It appears that when the home, school, peer group, and larger community are similar, the effect of interventions on children and youth is greater (Epstein 1987).

A wide range of parent involvement programs is being implemented by schools across the country. These programs include classes in parenting, strategies for supporting learning at home, and involvement of parents in school management, decision making, and classroom instruction. Some programs help parents become better home educators and stress such behaviors as monitoring children's homework, providing academic assistance or tutoring, and reducing television time. These programs train family members to help their children develop good study habits and high expectations. Empirical results suggest that parent involvement in specific learning strategies has a strong and positive effect on children's academic performance (Lee, Bryk, and Smith 1993).

Other programs involve families directly in school management and choice and encourage parents' actu-

al presence in the school. Still others provide a host of services to families and children, including home visits, job training, career counseling, health care, and mental health and social support services. Parent involvement programs increase parents' positive investment and engagement in their children's learning, which in turn promote children's success in school. Families that are involved in their children's school experiences and demonstrate caring and high academic, moral, and social expectations increase the likelihood that their children will be educationally resilient.

Peer Group

After the family, peers are the most important source of support, providing children and adolescents with a sense of being cared for, valued, and loved. Peer networks can facilitate the development of an individual and protect against stress by providing a stable and supportive source of concern. However, a number of adversities can be associated with the peer group, including:

High dropout rate	Gangs
High pregnancy rate	Anti-school attitudes
Substance abuse	Few positive peer activities

Student achievement is a product not only of a child's cognitive ability but also of school climate, family values and practices, and the social networks of peers with whom they spend time. The peer group can inhibit positive educational outcomes by pressuring children

and youth to engage in misconduct, rather than in productive education.

The responsiveness of youth to the attitudes, aspirations, and behaviors of their peers is illustrated by Anderson's (1990) case studies of African-American male youth. In these case studies the youth were moving between two communities — one of low socioeconomic status and the other becoming middle class as a result of community gentrification. The adolescents appropriated the language, attitudes, and behaviors of the prevailing youth culture in each community. In the economically disadvantaged community, students displayed the more defensive physical postures and speech patterns that were characteristic of the youth in that community. In the gentrified community, the same youth exhibited more helpful acts in an effort to dispel perceptions of them as engaging in uncivil or criminal activities.

The power of peer influence is apparent in a variety of settings and circumstances. For example, boarding school students receive support from their friends if their families disengage. Peer counselors have been influential in reducing and preventing substance abuse. Children of divorced parents find respite in social networks, where they can distance themselves from disrupted, stressed homes. Peer networks have a greater effect on the school performance of children of divorce than they do on children from intact homes. Children of divorce, in particular, look to school friends for care and companionship.

Peers also have a significant effect on students' self-perceived academic competence and attitudes toward

school. A peer group's attitude toward school is a significant predictor of group members' grades, achievement test scores, value placed on being a good student, and perceived competence. Students whose peers value high achievement spend more time on homework, finish more of their homework assignments, attend school more regularly, and are less often tardy or absent without permission.

Participation in the peer group itself influences learning, as does students' use of out-of-class time. Students' participation in extracurricular activities and social clubs, while not as powerful as some other contextual features, can contribute much to academic accomplishment if the activities are well-designed and well-executed. Opportunities to interact with students who have high achievement motivation, positive attitudes toward school, and a positive academic self-concept can be beneficial to students at risk of school failure. Mentoring programs, cooperative learning programs, cross-age tutoring, use of small learning groups, and extracurricular activities provide mechanisms for children and youth to develop positive peer relationships and to strengthen support networks.

Community

A number of well-documented adversities occur within communities:

Few or fragmented community services
Service barriers (cost, language, transportation)
Little attention to learning or human development

High crime rate
High unemployment rate
Substance abuse

Common sense suggests that communities affect their residents' sense of well-being, safety, acceptance, and worth. Healthcare organizations, childcare services, job training opportunities, religious institutions, and recreational facilities are some of the social organizations that can promote resilience. Communities with well-developed and integrated networks of such social organizations have fewer social problems. Many policy makers and education reformers argue that when community institutions (such as urban school systems) fail, then their revitalization depends on uniting the entire community in a decisive effort to improve. The availability and cooperation among community institutions and organizations serve as protective factors in the community and mitigate against adversities.

Another protective factor is the expression of consistent social and cultural norms among community members and organizations. Such consistency helps children and youth learn what constitutes desirable behavior. Opportunities for children and youth to participate as valued members of the community also serve as a protective factor.

Communities with high expectations for good citizenship provide protective mechanisms for residents, as shown in studies that explore the importance of cultural norms on student alcohol and drug abuse. In analyses of the effectiveness of community-based sub-

stance abuse programs available to African-American youth, researchers found that school-based clinics are only partially effective in reducing risk. The more successful ones provide more adult aid, concrete help on tasks, and opportunities for students to develop new interests and skills. Moreover, communities can promote educational resilience by frequently and explicitly reinforcing positive social values. Families and schools can join communities in these efforts. For example, when communities engage in media campaigns that disparage drugs, promote graduation from high school, or stigmatize drinking while driving, they are communicating norms and values that also are likely to be promoted at home and school.

Supportive communities also offer opportunities for youth to participate in civic activities in meaningful ways. Community service projects involving youth provide such an opportunity. For example, elementary school students might develop a program to educate the community about the costs and benefits of recycling or environmental pollution.

Masten, Best, and Garmezy (1988) identified abstract beliefs in religious protective figures and relationships with members of the religious community as protective factors. Historically, religious beliefs have provided standards and expectations for good conduct for various ethnic groups and social classes.

Communities with high concentrations of economically disadvantaged families often lack a well-integrated network of social organizations for children and youth. The services provided to impoverished, deteriorating

urban communities often are compartmentalized and fragmented. In their analysis of the effect of social policies on the quality of human resources available to African-American youth, Swanson and Spencer (1991) emphasized the dual importance of finding ways to reduce risk and making opportunities and resources available in order to break the adverse chain reactions. Because schools have the most sustained contact with children and their families, several authorities hold that educators should consider the potential benefits of coordinating and integrating children's services across school and community organizations when designing their school improvement programs.

The linking of parent, school, and community resources through these programs helps amplify children and youth's sense of nurturance and support. One such example is coordinating school-linked services to provide ready access to medical, psychological, legal, transportation, and social services for students and their families. Although early evaluation results have demonstrated few beneficial outcomes from such programs, the early efforts at coordinated services often did not stress powerful instructional techniques in combination with access to the services. School-linked programs, if designed with attention to the resources of families, schools, and communities, seem likely to improve the overall quality of life for students and to promote educational resilience.

In summary, communities promote educational resilience through the availability and integration of a variety of human services. Other resilience-promoting

features include the explicit expression of prosocial values and ample opportunities for children and youth to contribute in important ways to community life.

School

Increasingly, researchers are examining the role schools play in promoting educational resilience. Like the family, peer group, and community contexts, the school environment can be beset by adversities:

Inadequate resources
Limited instructional time
Violence in school/classroom
Teacher burnout
Lack of a vision for education reform
Stigmatizing labels for students
Little parent/community involvement
Low learning expectations
Watered-down curriculum
Many disadvantaged students
Non-inclusive programs
Poorly prepared teachers
Ineffective school leaders
Limited professional development

While a given school may not encounter all these adversities, the number and intensity of the adversities can result in reduced achievement and social benefits for students.

Researchers have identified some consistent organization characteristics of effective, high-achieving schools

serving students at risk of school failure. These schools are smaller, more nurturing, more inclusive, and more engaged with families and the community than are low-achieving schools. They are less apt to isolate children with poor academic skills, learning disabilities, or limited English proficiency in pullout programs or self-contained classrooms. They also tend to be more structured and orderly. Students are clear about behavioral expectations and often have a role in determining them. Both teachers and students have a sense of involvement and belonging, and there are active parent and community involvement programs. Collaborations among school, family, and community are at the very core of high-achieving schools (Lee, Bryk, and Smith 1993; Teddlie and Stringfield 1993). These characteristics of high-achieving schools are protective factors that promote educational resilience.

Wang and Oates (1996) are conducting an ongoing study comparing urban children from low-income families who attend schools that have implemented resilience-promoting strategies with children who attend schools with similar demographic characteristics that have not implemented such strategies. The resilience-promoting strategies include implementing a site-specific plan for school improvement; employing teams of teachers for planning and delivery of instruction; mobilizing community and school resources to support a comprehensive, coordinated, inclusive approach to service delivery; using an instructional management system with a focus on student self-responsibility; integrating instruction and assessment to provide indi-

vidualized learning plans for students based on their needs, resources, and expediency; using research-based, effective instructional strategies; and involving families and communities in children's academic experiences, the cultural life of the school, and its management. Initial findings from this study show that children in the resilience-promoting schools have higher standardized test scores in reading and mathematics, higher aspirations for academic learning, better academic self-concepts, and clearer understandings of school and classroom rules.

Such studies describe effective schools serving large numbers of students at risk of school failure, but they also raise questions about what teachers can do in their own classrooms to promote students' achievement and healthy development. We suggest some possibilities in this area in the next section.

Creating Classrooms that Foster Resilience

Resilience-promoting strategies should be nurturing and academically engaging. Some of the classroom strategies, such as the use of high expectations and active learning, are not new. When teachers apply these strategies to educate children at risk of school failure, a new vision of children facing adversity can arise. This optimistic view of children features their life-affirming choices, energies, talents, and aspirations, rather than their deficits, lack of resources, and past failures.

Teacher Attitudes and Expectations

Individual teachers may not be able to alter class size, increase funding, or remedy conditions that place children at risk, but they can have a demonstrable and positive effect on students.

Caring Attitude. Other than parents, teachers have more intensive contact with children than most other adults. Thus teachers have opportunities to care for and support their students. Many educationally resilient

children attribute their success, in part, to a caring or supportive teacher or other adult — someone who had high expectations for their success and believed in, listened to, encouraged, and praised them. Children and youth who cite the influence of teachers and others (coaches, counselors, custodians, librarians) recognize that these mentors respected and listened to them. Students felt safe confiding in them. Werner and Smith found in their study of children of Kauai that "among the most frequently encountered positive role models in the lives of [these] children, outside the family circle, was a favorite teacher. For the resilient youngster a special teacher was not just an instructor for academic skills, but also a confidante and positive model for personal identification" (1989, p. 162).

Teachers' caring is shown directly through their academic and social interactions with children and indirectly through their classroom structure, curriculum, and instructional practices. Effective resilience-promoting teachers frequently and actively demonstrate their caring by showing interest and concern for students, expressing respect, and holding their students to high expectations.

High Expectations. Teachers' assumptions about their students' capabilities affect how they relate to students and conduct their classes. Teachers who believe that all children can learn and contribute to society hold them to high academic and citizenship standards.

Holding high expectations may be easier for the teacher if the child is well-behaved, industrious, and open to advice or correction. But what if a child is re-

sistant, disruptive, or sullen? Teachers need to examine how a child's behavior affects their feelings about that child's academic potential. Teachers should not assume that disruptive children cannot learn. By holding difficult children to high expectations, teachers demonstrate faith that all students can learn and promote students' engagement with the content and the classroom activity. Teachers need to keep in mind the benefits of high expectations for all students, not just the talented and compliant, as they develop different strategies for reaching students who might appear to be less receptive to their efforts.

Instructional Practices

Teachers cannot foster resilience with positive attitudes and high expectations alone. Caring and belief in student potential must be combined with powerful instructional practices that promote educational resilience. The following sections focus on facilitating student learning, responding to student diversity, and teaching students strategies for learning — research-based practices that produce achievement benefits for students at risk of school failure.

Facilitating Student Learning. Effective classroom teachers function more as facilitators of learning than as transmitters of knowledge. Those who persist in delivering content and treating students as passive vessels neither encourage children to take responsibility for their own learning nor demonstrate the conviction that they can do so. Such teaching contradicts what we know

about fostering resilience. Students benefit most from classrooms where teachers give students greater autonomy and facilitate their active engagement with learning.

Effective facilitators use practices that support children's active inquiry, experimentation, discussion, reflection, application, and evaluation and engage them in the acquisition and construction of their own knowledge. As facilitators in learner-centered classrooms, teachers can observe individuals and groups of students as they interact and learn. They can intervene, when necessary, to assist students by modeling appropriate behaviors and problem-solving strategies, asking higher-order questions, and identifying additional or more appropriate resources. In cases where students find the level of content difficult, teachers may relate the new material to students' present knowledge, rather than revert to explaining it repeatedly.

When the teacher acts as a facilitator, students learn to direct their own learning. By making students increasingly responsible for their own learning, teachers increase students' sense of personal agency — a characteristic of educationally resilient students. A high level of student-directed activity and engagement is characteristic of classrooms in which the teacher acts as a facilitator. Students organize their own time, identify resources for learning, and demonstrate what they have learned. Students in these classrooms are semi-independent learners and are more likely to become educationally resilient.

Responding to Student Diversity. Student diversity encompasses a number of characteristics: linguistic, economic, ethnic, and racial backgrounds; gender; prior learning and school experiences; talents; interests; motivation to learn; lifestyles; and attitudes toward school. Respecting and responding to these many differences promotes educational resilience. Using knowledge about student differences, teachers can choose appropriate curricula, employ effective teaching strategies, and design the most inclusive classroom environments in meeting students' learning needs and abilities.

Teachers can use students' prior knowledge and experiences to make new content comprehensible. For example, a history teacher might ask students to define and discuss what such concepts as "freedom" mean to them before studying the status of African Americans during and after the Civil War. Similarly, an English teacher might ask students to write about their own families before reading a novel that describes family life in a different culture. The teacher then can tie new content to the students' prior knowledge and experiences, thus integrating the new knowledge with what students already know.

Teachers who effectively respond to students' academic differences use many strategies to adapt instruction (Wang 1992). For example, they vary how new information is presented and support problem solving. They modify the amount of time they spend on review, vary the number of examples they use to explain or clarify, and tailor their use of summaries and points of emphases. They adapt the level, form, and number of questions they

ask, as well as their responses to correct and incorrect answers. Finally, these teachers also use a variety of assessment formats that allow children with diverse talents and abilities to demonstrate their knowledge and skills. Projects, exhibitions, portfolios, multiple choice tests, and performances are all different formats for assessing student knowledge (McCombs and Whisler 1997).

In summary, resilience-promoting strategies that are responsive to student diversity include: recognizing the ways students can differ; building on students' backgrounds and prior knowledge; tailoring classroom instruction to student abilities, interests, and experiences; and choosing assessment formats that are appropriate to students' background and prior learning.

Teaching Students Strategies for Learning. Students who plan, organize, and monitor their learning are more successful. They learn more and remember what they have learned for longer periods. Some children develop these planning, organizing, and monitoring strategies spontaneously, whereas others acquire these "metacognitive" skills through instruction. Students who apply metacognitive strategies are able to plan better, to monitor their own progress, to correct poor or faulty steps in their problem solving, and to reflect on their own skills, accomplishments, and learning processes. Among the particular skills students can learn are setting explicit learning goals, underlining key information, quizzing themselves about the content to be learned, organizing new material by conceptual category, and using help-seeking behaviors, such as knowing when to ask for as-

sistance. The development of learning strategies and help-seeking behaviors results in students becoming more independent learners, which contributes to their educational resilience.

Classroom Climate and Organization

Well-managed classrooms promote educational resilience by guaranteeing that time for learning is a classroom priority. Children at risk of school failure benefit when learning time is maximized. Classrooms with fewer interruptions and less time spent on management and logistics, such as announcements and collecting work, have higher achievement than classrooms that do not guard time for students' academic pursuits.

Well-managed classrooms have clearly understood rules and procedures. In these classrooms, teachers may invite students to participate in determining classroom rules, procedures, and strategies for conflict resolution. As a result of participating in classroom governance, students not only become very familiar with rules, but also develop social skills, an increased sense of autonomy, and responsibility to others — all of which promote educational resilience and learning success. In addition, democratic classrooms emphasize the importance of students and teachers respecting each other's activities, values, and humanity.

Classroom organization can promote educational resilience. Involvement in cooperative learning, small-group work, peer tutoring, cross-age instructional activities, and mixed-ability groups benefit most chil-

dren, especially those at risk of school failure. In these cooperative, supportive classrooms, students develop social skills, bolster their self-concept, acquire new problem-solving strategies, and learn to be accountable for their work.

The physical arrangement of a classroom also can promote resilience. A classroom in which rows of desks or tables can be easily rearranged so that children may communicate and work together demonstrates that students *can* learn from one another. Teachers may want to set aside classroom areas as learning centers. While the teacher works with six or seven students on a group project, other students may work at different learning stations, taking on responsibility for their learning. Flexible classrooms in which students can learn from each other and work independently support the teacher's role as a learning facilitator.

Curriculum

A rich, rigorous, learner-centered curriculum provides conditions that foster educational resilience. Individuals expand and modify their old knowledge base by integrating new facts, principles, theories, and other types of information. Individuals also have to learn when and how to apply this knowledge in order to solve problems. To promote resilience, the curriculum must provide not only facts but also experiences in solving complex, real-life problems.

Many children placed at risk of school failure have suffered from a lack of exposure to rigorous academic

curricula and have not been expected to master higher-level thinking skills. The heavy emphasis on drill and practice that characterizes the typical remedial curriculum does not provide students with rich content that can be used to advance their skills in solving problems, making decisions, and applying new knowledge. Exposing students to rich content in a variety of academic subjects — and in art, drama, music, community service, apprenticeships, and sports activities — provides many opportunities for students to develop new connections to prior knowledge. Students then may apply their new knowledge in diverse settings, thereby integrating what they have learned. Thus the rigor and richness of the content and its application to authentic tasks can promote educational resilience.

In the learner-centered classroom, the curriculum for at-risk students often is advanced — not remedial — and is approached in depth and from multiple perspectives. It is interdisciplinary and multicultural, weaving together meaningful content and ways of thinking from different disciplines in order to capture the complexity of real-world problems by introducing as many perspectives as possible and by making close connections between in-school and out-of-school experiences.

A rich, varied, and challenging curriculum provides a vehicle for students with diverse backgrounds and learning needs to develop procedural knowledge that promotes resilience. Inspired by a genuine interest in curriculum with personal significance, students are more apt to learn. Curricula based on authentic learning experiences also build students' confidence in be-

coming effective, productive, and fulfilled members of society.

Programs and Reforms that Build Resilience

During the past decade, research-based knowledge about how schools can build educational resilience has increased. Using this knowledge, education programs and reforms can be analyzed to determine their resilience-promoting features. Many types of interventions may foster resilience — including those that focus on classroom instruction, school organization and delivery of services, and comprehensive school reforms. These interventions promote resilience by creating conditions that result in positive student outcomes, such as increased learning, prosocial behaviors, healthy physical development, increased use of metacognitive skills, positive self-concept, and a positive attitude toward learning.

The table on pages 44-45 lists selected education programs and the resilience-promoting features that apply to each. A list of references for these programs is included as an appendix to this fastback. The resilience-promoting features were culled from the research literature on resilience and effective schools, practices, and policies.

These features have been grouped according to school climate and organization, classroom climate and organization, teacher attitudes and expectations, instructional practices, and curriculum.

The programs were selected to represent a range of widely implemented, innovative education programs. They include prekindergarten, elementary, middle school, and secondary school programs. Some deliver subject-specific content (such as science, reading, and writing), while others develop more general higher-order thinking and self-directed learning skills. Our analysis of these programs and reforms identified six dimensions of resilience-promoting programs, which are described in the following sections.

Programs Targeted at Children at Risk of School Failure

To promote the well-being of children who are at risk of school failure, school districts need information about reforms that are likely to foster educational resilience. Programs that target students at risk of school failure are more likely to address a range of student needs, including academic attainment, social skills, and physical and psychological well-being. Nine of the programs in the table were designed specifically for children at risk of school failure: Accelerated Schools, School Development Program, 20/20 Analysis, Adaptive Learning Environments Model, Community for Learning, Head Start on Science, Reading Recovery, Higher Order Thinking Skills, and Success for All. The number of re-

Table 1: Resilience-Promoting Attributes of

Resilience-Promoting Attributes
School Climate and Organization
Inclusive schools
Structured and orderly schools
Coordinated school-linked services
Family involvement
Community involvement/mentoring
Small schools
Site-Specific improvement plan
Shared decision making (curriculum, instruction, governance)
Research-based effective educational practices
Academically oriented school culture
Academically demanding program
Oriented to preventing problems
Classroom Climate and Organization
Inclusive classroom/de-tracking
Small class size
Positive classroom climate
Well-managed classrooms

tributes of Educational Programs and Reforms

	Accelerated Schools	School Development Program	Core Knowledge Series	Coalition of Essential Schools	21/2B Analysis	Adaptive Learning Environments Model	Community for Learning	Head Start on Science	Reading Recovery	National Writing Project	Higher Order Thinking Skills	Success for All
		x			x	x	x					x
	x	x				x	x					
	x	x			x		x					
	x	x	x	x	x	x	x	x	x			x
	x	x		x	x	x	x	x				
				x								
	x	x		x	x	x	x					x
ernance)	x	x		x	x	x	x					x
	x	x	x	x	x	x	x	x	x	x	x	x
	x		x	x	x	x	x				x	x
	x		x	x	x	x	x				x	x
	x	x		x	x	x	x	x				x
	x	x			x	x	x					x
	x											x
	x	x		x		x	x					x
	x					x	x					

Teacher Attitudes and Expectations
Caring teachers
High expectations for student learning
Instructional Practices
Facilitating student learning
Active learning (learner-centered classroom)
Maximized learning time
Direct instruction
Adaptive learning strategies
Whole-class instruction
Small-group instruction
One-on-one instruction
Peer-based learning activities
Frequent, high-quality academic and social interactions
Metacognitive and student self-responsibility strategies
Curriculum
Multicultural curriculum
Appropriate to students' cultural background
Appropriate to students' academic background
Challenging curriculum with rich content
Attention to foundation of basic skills
Multiple assessment strategies
Individual learning plans
Integration of content areas
Alignment of curriculum and assessment

	x		x			x						
	x	x	x	x	x	x	x	x	x	x	x	x
	x	x	x	x	x	x	x	x	x	x	x	x
	x			x	x	x	x	x		x	x	x
	x	x			x	x	x		x		x	x
	x	x	x		x	x	x		x			x
		x			x	x	x		x		x	x
	x	x	x	x	x	x	x			x	x	
	x	x			x	x	x	x			x	x
					x	x	x	x	x		x	x
	x			x	x	x	x	x				x
actions	x	x	x	x	x	x	x	x	x	x	x	x
ategies		x		x	x	x	x	x	x	x	x	x
			x									
	x	x		x				x	x			x
	x	x		x	x	x	x	x	x		x	x
	x		x	x	x	x	x	x			x	x
	x	x	x	x	x	x	x	x	x	x	x	x
	x	x		x	x	x	x				x	x
		x			x	x	x		x			x
	x	x		x		x	x	x		x		
	x	x	x	x	x	x	x		x	x	x	x

silience-promoting features in these programs ranged from 12 to 35. The two programs that did not have a specific focus on students at risk had 13 (Core Knowledge Series) and 12 (National Writing Project) resilience-promoting features.

Comprehensive School Reform vs. Narrower Interventions

Because a program is designed for children at risk does not indicate, in itself, whether it will promote resilience. What matters is the breadth of the program. For example, narrowly focused programs that increase subject matter skills or teach computer literacy may incompletely address the needs of the child. To establish whether a program promotes resilience requires careful examination of the program components, the role and expectations of teachers, instructional practices, curriculum content, the delivery of services to students with greater-than-usual instructional needs, and the classroom and school organization and climate.

During the 1990s school restructuring received much attention from the research, policy, and practitioner communities as a means of upgrading U.S. schools. When school restructuring is limited to changes in school governance, policymaking, and the creation of a site-based improvement plan, its effect on students may be indirect and less pervasive than comprehensive school reforms. Analogously, when reforms are limited to instruction in a single content area and use a particular instructional strategy or a highly focused curricu-

lum, they may cause changes in narrowly targeted student outcomes but fail to address the range of co-occurring risks that confront children at risk of school failure. Whole-school reforms are more likely to promote resilience.

Of the 12 programs reviewed, five are comprehensive school reforms. These programs include Accelerated Schools, School Development Program, Coalition of Essential Schools, Adaptive Learning Environments Model, and Community for Learning. These five programs have 26 to 35 resilience-promoting features, or an average of about 31 features. The seven programs that are narrower interventions average only about 20 resilience-promoting features, with a range of 13 to 30.

Comprehensive school reforms typically embrace several influences, including powerful instruction, challenging curricula, effective and efficient classroom management, positive classroom and school climate, and organizational features. By advancing on so many fronts, comprehensive school reforms are likely to address school- and instruction-related problems that face children placed in a variety of at-risk circumstances. Schools that serve large numbers of at-risk children likely would benefit from broad-based, comprehensive school reform.

Direct Influences on Student Learning

A child's learning is influenced most by his or her psychological characteristics (for example, ability and prior achievement) and the features of his or her home

and classroom (Wang, Haertel, and Walberg 1994). These influences are powerful because they are experienced directly by the individual and, in the case of the home and classroom, are encountered almost daily. Students learn more when their day-to-day environments are educationally supportive and challenging.

Some resilience-promoting programs influence student learning directly. They foster psychological attributes associated with educational resilience, such as self-regulated learning, interpersonal skills, problem-solving, and literacy and numeracy. Other resilience-promoting programs offer powerful classroom instruction to improve student learning. These practices include maximized learning time, direct instruction, adaptive learning strategies, and a cooperative, goal-directed classroom climate. All the programs in the table employ research-based practices but vary in the particular practices they employ.

Many of the resilience-promoting programs also influence the home and family environment. Nine of the 12 programs have family involvement components: Accelerated Schools, School Development Program, Coalition of Essential Schools, Core Knowledge, Adaptive Learning Environments Model, Community for Learning, Head Start on Science, Reading Recovery, and Success for All. The more comprehensive programs foster desirable psychological attributes, create classrooms with positive climates and effective instructional practices, *and* cultivate family involvement and an educationally supportive home environment.

Meeting Children's Basic Needs

Many children's basic needs are not met. For example, some children live in single-parent families, often with single mothers. When children do have two parents, typically both are employed. These circumstances limit the experiences and time that families share. In addition, many children live in impoverished and crime-ridden neighborhoods and attend schools that fail to provide a high-quality education. The constraints in these kinds of environment can place children at risk. Resilience theory stresses the interdependence of home, classroom, school, peer group, and community. The resources and influences in each of these environments can be combined to overcome limitations in any single context and to better meet children's needs.

Three key program features that attend directly to meeting the needs of the whole child are 1) school-linked, coordinated services; 2) a schoolwide orientation to problem prevention; and 3) inclusive practices. Of the 12 programs reviewed, only three included an integrated approach to school-linked services: School Development Program, 20/20 Analysis, and Community for Learning. Eight programs had a prevention orientation: School Development Program, Coalition of Essential Schools, 20/20 Analysis, Adaptive Learning Environments Model, Community for Learning, Head Start on Science, and Success for All. Schoolwide inclusive practices were incorporated in five programs: Accelerated Schools, School Development Program, 20/20 Analysis, Adaptive Learning Environments Model, and Community for Learning.

Children's needs can be met with a combination of home, school, neighborhood, and community services. A program whose primary goal is meeting the needs of the whole child is the School Development Program, which is based on several premises, including the African proverb, "It takes a whole village to raise a child." The School Development Program creates a psychologically nurturing school climate that encourages parents and school staff to promote student academic and social development. They act on the belief that student outcomes are a product of school climate and instruction, not differences in students' backgrounds. The School Development Program illustrates how frequently fragmented medical, social, and educational services can be coordinated to improve the life chances of children and families.

The Community for Learning program is another comprehensive school reform that stresses community-school-home connections. Its strategies to increase parent and community involvement include biweekly topical workshops for parents and community members; extension services by neighborhood agencies that provide family counseling, adult education, job training, and social outings; and a collaborative program with local libraries to foster literacy development.

Students' Sense of Belonging

Teachers not only impart knowledge and skills to children but also serve as confidants and role models. Frequent opportunities for students to interact socially

with teachers enhance students' sense of belonging. In addition to the presence of caring teachers, a cooperative, democratic classroom and school based on shared goals and free of friction and favoritism also create a sense of belonging.

A number of features reveal whether a nurturing classroom and school climate are stressed in programs and reforms. At the school organization level, these features include the use of inclusive practices and small educational units (small school size, small class size, and schools-within-schools). Other indicators include the use of peer-based learning, small instructional groups, mentoring, and other collaborative learning activities. Programs that promote a sense of belonging also attend to teachers' holding high expectations of all students and listening and responding to children's needs. Of the 12 programs reviewed, none require small school size and two require small class size, though several programs employ small instructional groups, one-on-one tutoring, or peer-based cooperative learning activities. (This latter group includes Accelerated Schools, School Development Program, Adaptive Learning Environments Model, Community for Learning, Head Start on Science, Higher Order Thinking Skills, and Success for All.) Five programs employ inclusive schoolwide and classroom practices: Accelerated Schools, School Development Program, 20/20 Analysis, Adaptive Learning Environments Model, and Community for Learning.

Most of these programs encourage frequent academic and social interactions with teachers. The expanded roles of teachers and school staff to address the healthy

development of the whole child are specific features in the School Development Program, the Coalition of Essential Schools, and the Community for Learning program. While most of the programs reviewed included language that "all children can learn" or about the importance of "high expectations" for all students, only eight explicitly specify academically demanding program features.

Adapting Curriculum and Instruction

Resilience-promoting programs provide challenging, relevant curricula and effective instruction that are tailored to students' academic and cultural needs. To promote educational resilience, students must have opportunities to acquire advanced knowledge and skills in the subject areas. Thus programs with a narrow focus on basic skills and remediation, or literacy alone, do not promote resilience. In addition, instructional practices that are not adapted to students' learning needs (for example, inappropriate pace, inappropriate difficulty level, and disregard for students' prior academic placements and curricular and instructional histories) will neither advance students' knowledge efficiently and effectively nor promote educational resilience.

The following resilience-promoting features adapt educational activities to children's needs: individual learning plans, adaptive instructional strategies, multicultural and intellectually challenging curricula tailored to children's cultural backgrounds and academic needs, and use of frequent assessments in a variety of formats.

Seven of the 12 programs use adaptive learning strategies. They include the use of individual learning plans in their program design: School Development Program, 20/20 Analysis, Adaptive Learning Environments Models, Community for Learning, Reading Recovery, National Writing Project, and Higher Order Thinking Skills.

Most programs reviewed do adapt curricula to students' academic backgrounds, but fewer adapt curricula to students' cultural backgrounds. Only three programs do not emphasize a rich and challenging curriculum: Reading Recovery, which focuses on remediation; the School Development Program, which focuses on use of classroom time, curriculum and assessment alignment, and content coverage but does not address the rigor of the curriculum; and the National Writing project, which stresses the teaching of writing and not the content of the curriculum.

Eight of the programs reviewed use a range of assessment formats: Accelerated Schools, School Development Program, Coalition of Essential Schools, 20/20 Analysis, Adaptive Learning Environments Model, Community for Learning, Reading Recovery, and Success for All. And 11 programs attend to whether their assessments are aligned with their curricula. It is noteworthy that most of the programs reviewed emphasize adaptation of curriculum and instruction to children's needs and backgrounds. However, in some programs, such as the Adaptive Learning Environments Model, adaptations are fundamental to the program's design; whereas in others adaptation to children's needs is ac-

knowledged, but the program's design does not explicitly feature the adaptive process.

Conclusion

Much work remains to further our understanding of educational resilience and how to promote it. Teacher education and professional development need to educate new and experienced teachers in resilience-promoting methods and strategies. Resilience-promoting school programs and reforms that connect family, school, and community need to be strengthened and widely implemented to significantly foster healthy development and educational success. Teachers and other practitioners can re-examine their basic attitudes and assumptions to recognize and trust the potential of every child, especially those at risk of school failure. They also can implement powerful instructional techniques that are linked to student learning and curricula that are infused with rich academic content relevant to students' diverse backgrounds.

Children's educational resilience cannot be created merely by a set of activities or strategies. Educational resilience will be enhanced by teachers adopting a new vision of their students as individuals who can make choices, acquire knowledge and skills, and achieve a fulfilling life. With this vision in mind, teachers can empower

students through caring and high expectations and by implementing best educational practices and a rigorous curriculum. Narrow school reforms and interventions are unlikely to promote educational resilience, especially among children facing multiple life adversities. However, when the resources of the school, family, and community are united, children facing significant adversities can overcome obstacles and achieve success.

Increasingly, educators can identify and create successful pathways that lead to educational resilience among their students. By understanding the role that protective factors play in buffering children against adversities, educators can design classroom and school environments that foster learning, psychological well-being, and healthy development. Educators can extend these understandings into the home, neighborhood, and community contexts as well. Research has revealed ways to magnify the features of each of these environments so that healthy development and learning is promoted.

Resilience research has provided insights on how children in stressful life circumstances beat the odds and create satisfying, productive lives. For educators and other human service professionals, educational resilience research suggests the potential benefits of early experience, mitigating stressful life circumstances, and establishing protective factors in communities, homes, peer groups, and schools. Children's capacity to become educationally resilient can be expanded by mobilizing the latent energies and resources available in these environments. The use of these resources amplifies the possibilities of children's healthy develop-

ment and adaptation to and recovery from stressful life circumstances.

The concept of educational resilience reminds us that children's lives can be healed through care, loving and educationally supportive families and friends, community resources, and educational activities that are well-designed and purposefully carried out. Alterable environmental conditions can fortify students to persist through endemic difficulties en route to educational resilience and a successful adult life.

References

Anderson, E. *Streetwise: Race, Class, and Change in an Urban Community*. Chicago: University of Chicago Press, 1990.

Baker, E.T.; Wang, M.C.; and Walberg, H.J. "The Effects of Inclusion on Learning." *Educational Leadership* 52, no. 4 (1994): 3-35.

Comer, J.P. "Parent Participation in the Schools." *Phi Delta Kappan* 67(February 1986): 442-46.

Epstein, J. "Toward a Theory of Family-School Connections: Teacher Practices and Parent Involvement." In *Social Intervention: Potential and Constraints*, edited by K. Hurrlemann, F. Kaufmann, and F. Losel. New York: De Gruyter, 1987.

Flaxman, E., and Inger, M. "Parents and Schooling in the 1990s." *ERIC Review* 1, no. 3 (1991): 26.

Lee, V.E.; Bryk, A.S.; and Smith, J.B. "The Organization of Effective Secondary Schools." In *Review of Research in Education*, vol. 19, edited by L. Darling-Hammond. Washington, D.C.: American Educational Research Association, 1993.

Lee, V.E.; Winfield, L.F.; and Wilson, T.C. "Academic Behaviors Among High-Achieving African-American Students." *Education and Urban Society* 24, no. 1 (1991): 65-86.

Masten, A.S.; Best, K.M.; and Garmezy, N. "Resilience and Development: Contributions from the Study of Children Who Overcome Adversity." *Development and Psychopathology* 2 (1990): 425-44.

McCombs, B.L., and Whisler, J. *Creating Learner-Centered Classrooms and Schools*. San Francisco: Jossey-Bass, 1997.

Swanson, D.P., and Spencer, M.B. "Youth Policy, Poverty, and African-Americans: Implications for Resilience." *Education and Urban Society* 24, no. 1 (1991): 148-61.

Teddlie, C., and Stringfield, S. *Schools Make a Difference: Lessons from a 10-Year Study of School Effects*. New York: Teachers College Press, 1993.

Wang, M.C. *Adaptive Education Strategies: Building on Diversity*. Baltimore: Paul H. Brookes, 1992.

Wang, M.C., and Gordon, E.W., eds. *Educational Resilience in Inner-City America: Challenges and Prospects*. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1994.

Wang, M.C.; Haertel, G.D.; and Walberg, H.J. "Educational Resilience in Inner-City Schools." In *Educational Resilience in Inner-City America: Challenges and Prospects*, edited by M.C. Wang and E.W. Gordon. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1994.

Wang, M.C., and Oates, J. "Fostering Resilience and Learning Success in Schools: The Community for Learning Program." *LSS Spotlight on Student Success*, No. 102. Philadelphia: Laboratory for Student Success, 1996.

Wang, M.C., and Reynolds, M.C., eds. *Making a Difference for Students at Risk: Trends and Alternatives*. Thousand Oaks, Calif.: Corwin, 1995.

Werner, E., and Smith, R. *Vulnerable but Invincible: A Longitudinal Study of Resilient Children and Youth*. New York: Adams, Bannister, and Cox, 1989.

Yancey, W.L., and Saporito, S.J. "Racial and Economic Segregation and Educational Outcomes: One Tale, Two Cities." In *Social and Emotional Adjustment and Family Relations in Ethnic Minority Families*, edited by R.D. Taylor and M.C. Wang. Mahwah, N.J.: Lawrence Erlbaum Associates, 1997.

Appendix:

Educational Programs with Resilience-Promoting Features

Accelerated Schools. Hopfenberg, W.S.; Levin, H.M.; et al. *The Accelerated Schools: Resource Guide.* San Francisco: Jossey-Bass, 1993.

Adaptive Learning Environments Model. Wang, M.C., and Zollers, N.J. "Adaptive Instruction: An Alternative Service Delivery Approach." *Remedial and Special Education* 11, no. 1 (1990): 7-21.

Coalition of Essential Schools. Sizer, T.R. *Horace's School: Redesigning the American High School.* Boston: Houghton Mifflin, 1992.

Community for Learning. *Community for Learning Training Manual.* Philadelphia: Laboratory for Student Success, 1997.

Core Knowledge Series. Hirsch, E.D., Jr. *The Schools We Need: Why We Don't Have Them.* New York: Doubleday, 1996.

Head Start on Science. Hammrich, P.L. *A Head Start on Science: Improving the Capacity of Families and Teachers to Promote and Enhance the Lives of Children.* LSS Spotlight on Student Success No. 204. Philadelphia: Laboratory for Student Success, 1996.

Higher Order Thinking Skills (HOTS). Pogrow, S. "HOTS: Helping Low Achievers in Grades 4-7." *Principal* 76 (November 1996): 34-35.

National Writing Project. Smith, M.A. "The National Writing Project After 22 Years." *Phi Delta Kappan* 77 (June 1996): 688-92.

Reading Recovery. Pinnell, G.S. *Restructuring Beginning Reading with the Reading Recovery Approach*. Fastback 328. Bloomington, Ind.: Phi Delta Kappa Educational Foundation, 1991.

School Development Program. Comer, J.P.; Haynes, N.H.; Joyner, E.T.; and Ben-Avie, M., eds. *Rallying the Whole Village*. New York: Teachers College Press, 1996.

Success for All. Slavin, R.E.; Karweit, N.L.; and Wasik, B.A., eds. *Preventing Early School Failure: Policy and Practice*. Boston: Allyn and Bacon, 1994.

20/20 Analysis. Reynolds, M.C. *20/20 Analysis Manual*. Philadelphia: Laboratory for Student Success, 1997.

Phi Delta Kappa Fastbacks

Two annual series, published each spring and fall, offer fastbacks on a wide range of educational topics. Each fastback is intended to be a focused, authoritative treatment of a topic of current interest to educators and other readers. Several hundred fastbacks have been published since the program began in 1972, many of which are still in print. Among the topics are:

Administration
Adult Education
The Arts
At-Risk Students
Careers
Censorship
Community Involvement
Computers
Curriculum
Decision Making
Dropout Prevention
Foreign Study
Gifted and Talented
Legal Issues
Mainstreaming
Multiculturalism
Nutrition
Parent Involvement
School Choice
School Safety
Special Education
Staff Development
Teacher Training
Teaching Methods
Urban Education
Values
Vocational Education
Writing

For a current listing of available fastbacks and other publications of the Educational Foundation, please contact Phi Delta Kappa, 408 N. Union, P.O. Box 789, Bloomington, IN 47402-0789, or (812) 339-1156.

Phi Delta Kappa Educational Foundation

The Phi Delta Kappa Educational Foundation was established on 13 October 1966 with the signing, by Dr. George H. Reavis, of the irrevocable trust agreement creating the Phi Delta Kappa Educational Foundation Trust.

George H. Reavis (1883-1970) entered the education profession after graduating from Warrensburg Missouri State Teachers College in 1906 and the University of Missouri in 1911. He went on to earn an M.A. and a Ph.D. at Columbia University. Dr. Reavis served as assistant superintendent of schools in Maryland and dean of the College of Arts and Sciences and the School of Education at the University of Pittsburgh. In 1929 he was appointed director of instruction for the Ohio State Department of Education. But it was as assistant superintendent for curriculum and instruction in the Cincinnati public schools (1939-48) that he rose to national prominence.

Dr. Reavis' dream for the Educational Foundation was to make it possible for seasoned educators to write and publish the wisdom they had acquired over a lifetime of professional activity. He wanted educators and the general public to "better understand (1) the nature of the educative process and (2) the relation of education to human welfare."

The Phi Delta Kappa fastbacks were begun in 1972. These publications, along with monographs and books on a wide range of topics related to education, are the realization of that dream.